

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Jeffrey Donald Manuell et al.

Serial No.: 10/687,285

Filed: October 16, 2003

Group Art Unit: 2115

Confirmation No.: 7541

For: AUTOMATED LOAD SHEDDING OF POWERED DEVICES IN
A COMPUTER COMPLEX IN THE EVENT OF A UTILITY
INTERRUPTION

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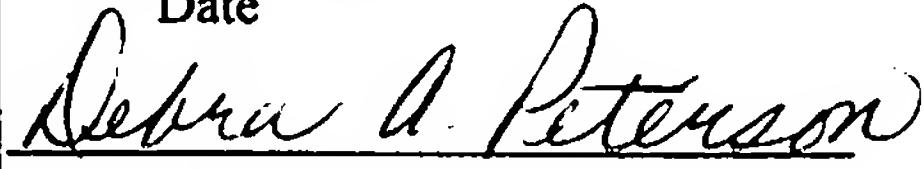
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Debra A. Peterson

**APPEAL BRIEF IN SUPPORT OF APPEAL
FROM THE PRIMARY EXAMINER TO THE BOARD OF APPEALS**

This is an appeal of a Final Rejection of claims 1, 3-9, and 11-29 of Application
Serial Number 10/687,285 filed October 16, 2003. This brief is being submitted pursuant
to 37 C.F.R. 1.192. A Notice of Appeal was filed on December 11, 2006.

Docket No.: ROC920030361US1
Serial No.: 10/687,285

1. Real Party in Interest

International Business Machines Corporation is the real party in interest.

2. Related Appeals and Interferences

There are no related appeals or interferences pending with this application.

3. Status of Claims

Appellants appeal from the rejection in the September 11, 2006 Office Action of claims 1, 3-9, and 11-29. The claims on appeal are set forth in Appendix A.

4. Status of Amendments

No amendments were filed subsequent to the final rejection of September 11, 2006.

5. Summary of Claimed Subject Matter

As described in the Abstract at page 27, the present invention provides a method, apparatus and computer-readable program for providing management of a computing complex during a utility interruption. More specifically, the present invention provides an automated method, apparatus and computer-readable program to manage the selected power down of devices within an information technology computing complex when the loss of conventional utility service occurs. This invention selectively shuts down systems/devices within the computing complex based on the criticality of the

systems/devices and the current state of environment parameters (e.g., battery reserve level, temperature, time, etc.) monitored within the computing complex.

Appellants are appealing from the Examiner's rejection of claims 1, 3-9, and 11-29.

In compliance with 37 C.F.R. § 41.37c(1)(v), a concise explanation of the subject matter defined in independent claims 1, 9, 17, and 29, including references to the specification by page and line number, and to the drawings follow.

Claim 1 describes a method for managing the operation of a computing complex having one or more computer servers during a utility outage (Specification, page 4, paragraph 8, and Figure 6, generally). The method begins by monitoring one or more operating environment parameters within the computing complex (Specification, page 4, paragraph 9, and Fig. 5, element 16). Next, the method selectively powers down one or more of the computer servers based on the current state of the operating environment parameters and a criticality value assigned to each of the one or more computer servers (Specification, page 4, paragraph 9, and Fig. 5, element 16).

Claim 9 describes a computer-readable program for managing the operation of a computing complex having one or more computer servers during a utility outage, the computer-readable program stored on a computer-readable medium (Specification, page 4, paragraph 8; page 12, paragraph 31, and Figure 6, generally). The computer-readable program is configured to perform the step of monitoring one or more operating environment parameters within the computing complex (Specification, page 4, paragraph 9, and Fig. 5, element 16). Next the computer-readable program is configured to perform the step of selectively powering down one or more of the computer servers based on the

current state of the operating environment parameters and a criticality value assigned to each of the one or more computer servers (Specification, page 4, paragraph 9, and Fig. 5, element 16).

Claim 17 describes an apparatus for managing the operation of a computing complex comprising one or more computer servers during a utility outage (Specification, page 4, paragraph 8, and Figure 1, generally). The apparatus includes a set of environment equipment for maintaining the operating environment of the computing complex (page 8, paragraph 20, and Fig. 1, element 12). The apparatus also includes an environment monitor server coupled to the set of environment equipment for monitoring the current state of one or more operating environment parameters within the computing complex (page 8, paragraph 21, and Fig. 1, element 14). The apparatus further includes a set of control files for determining a current load shed category for the computing complex (page 8, paragraph 22, and Fig. 1, element 20). Finally, the apparatus includes a centralized load shedding manager coupled to the environment monitor server and the set of control files, the centralized load shedding manager managing the selective powering down of one or more of the computer servers based on the current state of the one or more environment parameters, the current load shed category for the computing complex and the criticality value assigned to each of the one or more computer servers (page 12, paragraph 32, page 13, paragraph 35, Figs. 1, 2 and 5, element 16).

Claim 29 describes a method for deploying computing infrastructure, comprising integrating computer-readable code into a computing system, wherein the code in combination with the computing system is capable of providing management of the operation of the computer system during a utility outage (Specification, page 4, paragraph 8; page 12, paragraph 31, and Figure 6, generally). The method begins by monitoring one or more operating environment parameters within the computing system (Specification,

page 4, paragraph 9, and Fig. 5, element 16). Next, the method selectively powers down one or more of the computer servers based on the current state of the operating environment parameters and a criticality value assigned to each of the one or more computer servers (Specification, page 4, paragraph 9, and Fig. 5, element 16).

6. Grounds of Rejection to be Reviewed on Appeal

The Examiner has rejected claims 1, 5, 7, 9, 13, 15, and 29 under 35 U.S.C. § 102(e) as being anticipated by Nakagawa, U.S. Patent 6,990,593 (hereafter Nakagawa). The first issue is whether the Examiner is correct in asserting that claims 1, 5, 7, 9, 13, 15, and 29 are anticipated by the Nakagawa reference.

The Examiner has rejected claims 3, 4, 8, 11, 12, and 16 under 35 U.S.C. § 103(a) as being unpatentable over Nakagawa, U.S. Patent 6,990,593 (hereafter Nakagawa) in view of Bodas, US Publication 2004/0163001 (hereafter Bodas). The second issue is whether the Examiner is correct in asserting that claims 3, 4, 8, 11, 12, and 16 are obvious under 35 U.S.C. § 103(a) over Nakagawa in view of Bodas.

The Examiner has rejected claims 6 and 14 under 35 U.S.C. § 103(a) as being unpatentable over Nakagawa, U.S. Patent 6,990,593 (hereafter Nakagawa) in view of Hammond et al., US Patent 6,865,685 (hereafter Hammond). The third issue is whether the Examiner is correct in asserting that claims 6 and 14 are obvious under 35 U.S.C. § 103(a) over Nakagawa in view of Hammond.

The Examiner has rejected claims 17, 18, and 20-25 under 35 U.S.C. § 103(a) as being unpatentable over Bodas, U.S. Publication 2004/0163001 (hereafter Bodas) in view of Nakagawa, US Patent 6,990,593 (hereafter Nakagawa). The fourth issue is whether

the Examiner is correct in asserting that claims 17, 18, and 20-25 are obvious under 35 U.S.C. § 103(a) over Bodas in view of Nakagawa.

The Examiner has rejected claim 19 under 35 U.S.C. § 103(a) as being unpatentable over Bodas, U.S. Publication 2004/163001 (hereafter Bodas) in view of Nakagawa, US Patent 6,990,593 (hereafter Nakagawa) and Langer et al., U.S. Patent 5,381,554 (hereafter Langer). The fifth issue is whether the Examiner is correct in asserting that claim 19 is obvious under 35 U.S.C. § 103(a) over Bodas in view of Nakagawa and Langer.

The Examiner has rejected claims 26 and 27 under 35 U.S.C. § 103(a) as being unpatentable over Bodas, U.S. Publication 2004/0163001 (hereafter Bodas) in view of Nakagawa, US Patent 6,990,593 (hereafter Nakagawa) and Hammond et al., U.S. Patent 6,865,685 (hereafter Hammond). The sixth issue is whether the Examiner is correct in asserting that claims 26 and 27 are obvious under 35 U.S.C. § 103(a) over Bodas in view of Nakagawa and Hammond.

The Examiner has rejected claim 28 under 35 U.S.C. § 103(a) as being unpatentable over Bodas, U.S. Publication 2004/163001 (hereafter Bodas) in view of Nakagawa, US Patent 6,990,593 (hereafter Nakagawa) and Ewing et al., U.S. Patent 5,949,974 (hereafter Ewing). The seventh issue is whether the Examiner is correct in asserting that claim 28 is obvious under 35 U.S.C. § 103(a) over Bodas in view of Nakagawa and Ewing.

The Examiner has rejected claim 9 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. The eighth issue is whether the Examiner is correct in asserting that claim 9 is directed to non-statutory subject matter.

7. Argument

Appellants expressly state that the rejected claims do not stand or fall together. Appellants have grouped the claims on the basis of like subject matter and have organized this brief accordingly. Reasons why each claim group is separately patentable are provided below.

Rejection under 35 U.S.C. § 102(e)

The Examiner has rejected claims 1, 5, 7, 9, 13, 15, and 29 under 35 U.S.C. § 102(e) as being anticipated by Nakagawa, U.S. Patent 6,990,593 (hereafter Nakagawa). The first issue is whether the Examiner is correct in asserting that claims 1, 5, 7, 9, 13, 15, and 29 are anticipated by the Nakagawa reference.

Nakagawa describes a system and method for Quality of Service (QoS) based server cluster power management. The method includes grouping activities within a server cluster into predefined sets; assigning a priority level to each set; identifying a server hosting a set of lower-priority activities within the cluster; receiving a power interruption signal; and diverting power reserves of the server to another server in the cluster, in response to the power interruption signal.

While Appellants agree with the Examiner that both Nakagawa and the present invention are directed to the broad concept of managing a computing complex during a utility interruption, the two inventions achieve this goal in two very different, patentably distinct ways.

While Nakagawa manages activities (i.e., jobs or computing tasks) within the computing complex, the present invention manages servers within the computing

complex. As stated in Nakagawa in column 2, lines 60-65, “The method begins in step 302, where a network administrator groups server activities into predefined sets. The predefined sets are defined by the network administrator depending upon how the administrator intends to manage power reserves within the network after a power interruption occurs”. Nakagawa further states in column 3, lines 15-18, “In step 308, the power manager 224 generates a priority list, organizing server activities based on their assigned QoS levels”. And finally, in column 3, lines 26-27, “The power manager 224 selects which of the servers 202-208 to shutdown based on the priority list”.

In contrast to Nagakawa, claim 1 of the present invention specifically states that two factors are considered when selectively powering down the servers: 1) the current state of the operating environment parameters (the first factor); and 2) a criticality value assigned to each of the one or more computer servers (the second factor).

This second factor, a criticality factor assigned to each of the computer servers, is defined in paragraph 35 on page 13 of the Specification. Note that while both the present invention and Nagakawa shut down servers, the decision on what servers to shut down is determined by a priority level assigned to **groups of activities** in the case of Nagakawa, and a criticality value assigned to **individual servers** in the case of the present invention. Thus, while Nagakawa bases its shutdown decisions based on QoS levels (i.e., operational priority levels) assigned to “activities” running on the servers, the present invention bases its shutdown decisions on priority levels assigned to “servers”. Thus, Nagakawa does not provide the necessary claim element of a criticality value assigned to each of the one or more computer servers.

Further, Nagakawa does not provide the necessary claim element of powering down the servers based on the current state of the operating environment parameters (i.e.,

the first factor). The Examiner states that this element is provided by Nagakawa in column 3, lines 26-40. However, the passage cited by the Examiner refers only to shutting down servers based on the priority list assigned to groups of activities, which has already been discussed above (i.e., the second factor), and makes no mention whatsoever of environment parameters.

Environment parameters are defined within the Specification of the present invention on page 13, paragraph 34 which states: “In the illustrated example, centralized load shedding manager 16 begins by continuously monitoring environment parameters 56 within the computing complex. In the illustrated example, three such parameters include, but are not limited to: current UPS remaining battery power (in minutes) 58, ambient temperature 60, and current time 62”.

Thus, with regard to the claim element of “selectively powering down one or more of the computer servers based on the current state of the operating environment parameters and a criticality value assigned to each of the one or more computer servers”, Nakagawa does not assign criticality values to servers (it assigns them to activities), and Nakagawa does not provide any operating environment parameters whatsoever upon which to base the shutdown decision. As a result, Appellants respectfully submit that claim 1 is in condition for allowance.

Claims 5 and 7 depend directly from claim 1, which for reasons stated above, is now submitted as being allowable. Thus, Appellants also submit that claims 5 and 7 are also now in condition for allowance.

Claim 9 also contains the same claim element found in claim 1 (i.e. selectively powering down one or more of the computer servers based on the current state of the

operating environment parameters and a criticality value assigned to each of the one or more computer servers), and is submitted as allowable for the same reasoning presented above with regard to claim 1.

Claims 13 and 15 depend directly from claim 9 which, for reasons stated above, are now submitted as being allowable. Thus, Appellants also submit that claims 13 and 15 are also now in condition for allowance.

Claim 29 also contains the same claim element found in claim 1 (i.e. selectively powering down one or more of the computer servers based on the current state of the operating environment parameters and a criticality value assigned to each of the one or more computer servers), and is submitted as allowable for the same reasoning presented above with regard to claim 1.

Rejections under 35 U.S.C. § 103(a)

The Examiner has rejected claims 3, 4, 8, 11, 12, and 16 under 35 U.S.C. § 103(a) as being unpatentable over Nakagawa, U.S. Patent 6,990,593 (hereafter Nakagawa) in view of Bodas, US Publication 2004/0163001 (hereafter Bodas). The second issue is whether the Examiner is correct in asserting that claims 3, 4, 8, 11, 12, and 16 are obvious under 35 U.S.C. § 103(a) over Nakagawa in view of Bodas.

Appellants respectfully submit that passages cited by the Examiner from the Bodas reference (i.e., paragraphs 0032, 0035, and 0053) make no mention of managing computer servers during a utility outage. In paragraph 32, the power and thermal manager (EPTM) rather generically refers to its function as: “may manage power allocated to the computer system 200 based on power and cooling capacity 260”.

Paragraph 0035 mentions that the EPTM may receive information about UPS and utility status, but provides no detail on what it does with this information. Paragraph 0053 simply states that if an air conditioning system goes down, the temperature in the data center may rise, and the components in the computer systems may fail. Therefore, the data system administrators (not the EPTM) may need to reduce the power consumption levels of the computer systems by powering off one or more computer systems.

Thus, Bodas neither discloses nor suggests selectively powering down one or more computer servers based on one or more ambient temperature readings within the complex during a utility outage. Furthermore, there is no suggestion to combine the Bodas and Nakagawa references, since Bodas appears to be directed at thermal and power management during normal data center operations rather than specifically directed at monitoring thermal conditions during a utility outage.

Also, neither the Bodas or Nakagawa reference provide the necessary claim element of “selectively powering down one or more computer servers based on a criticality value assigned to each of the one or more computer servers”. Bodas neither discloses nor suggests this concept, and Appellants submit Nakagawa is also deficient of this claim element for reasons stated above with regard to the discussion of claim 1.

As a result, Appellants submit that claims 3, 4, 8, 11, 12, and 16 are now in condition for allowance.

The Examiner has rejected claims 6 and 14 under 35 U.S.C. § 103(a) as being unpatentable over Nakagawa, U.S. Patent 6,990,593 (hereafter Nakagawa) in view of Hammond et al., US Patent 6,865,685 (hereafter Hammond). The third issue is whether

the Examiner is correct in asserting that claims 6 and 14 are obvious under 35 U.S.C. § 103(a) over Nakagawa in view of Hammond.

Appellants respectfully submit that claims 6 and 14 depend directly from claims 1 and 9, respectfully, and must incorporate all the limitations of the base claims. Neither the Hammond or Nakagawa reference provide the necessary claim element of “selectively powering down one or more computer servers based on a criticality value assigned to each of the one or more computer servers”. Hammond neither discloses nor suggests this concept (it is concerned with notification only), and Appellants submit Nakagawa is also deficient of this claim element for reasons stated above with regard to the discussion of claim 1. As a result, Appellants submit that claims 6 and 14 are allowable.

The Examiner has rejected claims 17, 18, and 20-25 under 35 U.S.C. § 103(a) as being unpatentable over Bodas, U.S. Publication 2004/0163001 (hereafter Bodas) in view of Nakagawa, US Patent 6,990,593 (hereafter Nakagawa). The fourth issue is whether the Examiner is correct in asserting that claims 17, 18, and 20-25 are obvious under 35 U.S.C. § 103(a) over Bodas in view of Nakagawa.

Appellants respectfully submit that claims 17 include the claim element of “selectively powering down one or more computer servers based on a criticality value assigned to each of the one or more computer servers.” Neither the Bodas or Nakagawa references disclose nor suggest this necessary claim element. Bodas is concerned with monitoring only environmental parameters (i.e., not the criticality value assigned to servers), and Nakagawa is also missing this necessary claim element (see discussion above with respect to claim 1). As a result, Appellants submit that claim 17 is allowable over the cited Bodas and Nakagawa references. Also, since claims 18 and 20-25 depend

either directly or indirectly from claim 17, they are also now submitted as being in condition for allowance.

The Examiner has rejected claim 19 under 35 U.S.C. § 103(a) as being unpatentable over Bodas, U.S. Publication 2004/163001 (hereafter Bodas) in view of Nakagawa, US Patent 6,990,593 (hereafter Nakagawa) and Langer et al., U.S. Patent 5,381,554 (hereafter Langer). The fifth issue is whether the Examiner is correct in asserting that claim 19 is obvious under 35 U.S.C. § 103(a) over Bodas in view of Nakagawa and Langer.

Appellants respectfully submit that claim 19 depends directly from claim 17, and must incorporate all the limitations of this base claim. Neither the Bodas or Nakagawa reference provide the necessary claim element of “selectively powering down one or more computer servers based on a criticality value assigned to each of the one or more computer servers”. Bodas neither discloses nor suggests this concept (it is concerned only with the monitoring of environmental parameters), and Appellants submit Nakagawa is also deficient of this claim element for reasons stated above with regard to the discussion of claim 1. As a result, Appellants submit that claim 19 is allowable.

The Examiner has rejected claims 26 and 27 under 35 U.S.C. § 103(a) as being unpatentable over Bodas, U.S. Publication 2004/0163001 (hereafter Bodas) in view of Nakagawa, US Patent 6,990,593 (hereafter Nakagawa) and Hammond et al., U.S. Patent 6,865,685 (hereafter Hammond). The sixth issue is whether the Examiner is correct in asserting that claims 26 and 27 are obvious under 35 U.S.C. § 103(a) over Bodas in view of Nakagawa and Hammond.

Appellants respectfully submit that claims 26 and 27 depend directly from claim 17, and must incorporate all the limitations of this base claim. None of the Bodas, Hammond or Nakagawa references provide the necessary claim element of “selectively powering down one or more computer servers based on a criticality value assigned to each of the one or more computer servers”, as provided in claim 17. Bodas neither discloses nor suggests this concept (it is concerned only with the monitoring of environmental parameters), Hammond neither discloses nor suggests this concept (it is concerned with notification only), and Appellants submit Nakagawa is also deficient of this claim element for reasons stated above with regard to the discussion of claim 1.

The Examiner has rejected claim 28 under 35 U.S.C. § 103(a) as being unpatentable over Bodas, U.S. Publication 2004/163001 (hereafter Bodas) in view of Nakagawa, US Patent 6,990,593 (hereafter Nakagawa) and Ewing et al., U.S. Patent 5,949,974 (hereafter Ewing). The seventh issue is whether the Examiner is correct in asserting that claim 28 is obvious under 35 U.S.C. § 103(a) over Bodas in view of Nakagawa and Ewing.

Appellants respectfully submit that claim 28 depends directly from claim 17, and must incorporate all the limitations of this base claim. Neither the Bodas, Nakagawa, or Ewing reference provide the necessary claim element of “selectively powering down one or more computer servers based on a criticality value assigned to each of the one or more computer servers”. Bodas neither discloses nor suggests this concept (it is concerned only with the monitoring of environmental parameters), Ewing neither discloses nor suggests this concept (it is only concerned with SNMP traps), and Appellants submit Nakagawa is also deficient of this claim element for reasons stated above with regard to the discussion of claim 1. As a result, Appellants submit that claim 28 is allowable.

Rejection under 35 U.S.C. 101

The Examiner has rejected claim 9 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. The eighth issue is whether the Examiner is correct in asserting that claim 9 is directed to non-statutory subject matter.

In Appellants' reply to the Office Action of April 10, 2006, claim 9 was amended to specifically limit the claim to a tangible computer-readable medium. Appellants respectfully submit that this amendment to the claim limits the claim to tangible embodiments only, and thus fully addresses the concerns of the Examiner. Appellants are frankly confused by the Examiner's continued rejection of the claim under 35 U.S.C. 101 despite the Appellants' amendment of the claim limiting the claim specifically to only tangible embodiments. The mere fact that the specification contains so-called "intangible" embodiments such as signals, waveforms, transmissions and communications links is irrelevant if the claim is drawn with a limitation to only "tangible" embodiments. Thus, Appellants respectfully submit that this rejection is improper and should be withdrawn.

8. Claims Appendix

1. A method for managing an operation of a computing complex having one or more computer servers during a utility outage, the method comprising the steps of:
 - monitoring one or more operating environment parameters within the computing complex; and
 - selectively powering down one or more of the computer servers based on a current state of the operating environment parameters and a criticality value assigned to each of the one or more computer servers.
3. The method of claim 1, wherein the one or more operating environment parameters include one or more ambient temperature readings within the computing complex.
4. The method of claim 1, wherein the one or more operating environment parameters include a current time of day.
5. The method of claim 1, wherein the computing complex is powered by at least one battery driven uninterruptible power supply during the utility outage.
6. The method of claim 1, wherein the method further comprises the step of sending pager text messages to a predetermined set of support personnel based on the current state of the operating environment parameters.
7. The method of claim 1, wherein the utility outage is a power failure within the computing complex.
8. The method of claim 1, wherein the utility outage is a cooling failure within the computing complex.

9. A computer-readable program for managing an operation of a computing complex having one or more computer servers during a utility outage, the computer-readable program stored on a tangible computer-readable medium, the computer readable program being configured to perform the steps of:
 - monitoring one or more operating environment parameters within the computing complex; and
 - selectively powering down one or more of the computer servers based on a current state of the operating environment parameters and a criticality value assigned to each of the one or more computer servers.
11. The computer-readable program of claim 9, wherein the one or more operating environment parameters include one or more ambient temperature readings within the computing complex.
12. The computer-readable program of claim 9, wherein the one or more operating environment parameters include a current time of day.
13. The computer-readable program of claim 9, wherein the computing complex is powered by at least one battery driven uninterruptible power supply during the utility outage.
14. The computer-readable program of claim 9, wherein the method further comprises the step of sending pager text messages to a predetermined set of support personnel based on the current state of the operating environment parameters.
15. The computer-readable program of claim 9, wherein the utility outage is a power failure within the computing complex.
16. The computer-readable program of claim 9, wherein the utility outage is a cooling failure within the computing complex.

17. An apparatus for managing an operation of a computing complex comprising one or more computer servers during a utility outage, the apparatus comprising:
 - a set of environment equipment for maintaining an operating environment of the computing complex;
 - an environment monitor server coupled to the set of environment equipment for monitoring the current state of one or more operating environment parameters within the computing complex;
 - a set of control files for determining a current load shed category for the computing complex; and
 - a centralized load shedding manager coupled to the environment monitor server and the set of control files, the centralized load shedding manager managing the selective powering down of one or more of the computer servers based on a current state of the one or more environment parameters, a current load shed category for the computing complex and a criticality value assigned to each of the one or more computer servers.
18. The apparatus of claim 17, wherein the set of environment equipment includes at least one member chosen from the group consisting of: an uninterruptible power supply (UPS), a power distribution unit (PDU), a static transfer switch (STS), an air handling unit (AHU), and a temperature probe.
19. The apparatus of claim 18, wherein the one or more operating environment parameters include remaining battery operating time of the uninterruptible power supply powering the computing environment.
20. The apparatus of claim 18, wherein the one or more operating environment parameters include one more ambient temperature reading provided by the temperature probe.

21. The apparatus of claim 18, wherein the one or more operating environment parameters include a current time of day.
22. The apparatus of claim 18, wherein the computing environment is powered by the uninterruptible power supply during the utility outage.
23. The apparatus of claim 18, wherein the utility outage is a power failure within the computing complex.
24. The apparatus of claim 18, wherein the utility outage is a cooling failure within the computing complex.
25. The apparatus of claim 17, wherein the set of control files includes a load shedding master table.
26. The apparatus of claim 17, wherein the set of control files includes a load shedding pager table.
27. The apparatus of claim 17, wherein the apparatus further includes one or more pagers coupled to the centralized load shedding manager, wherein the centralized load shedding manager sends pager text messages to one or more pagers based on the current state of the operating environment parameters.
28. The apparatus of claim 17, wherein the environment monitoring server is coupled to the centralized load shedding manager by one or more simple network management protocol (SNMP) traps.

29. A method for deploying computing infrastructure, comprising integrating computer-readable code into a computing system, wherein the code in combination with the computing system is capable of providing management of an operation of the computer system during a utility outage, the method comprising the steps of:

monitoring one or more operating environment parameters within the computing system; and

selectively powering down one or more computer servers within the computing system based on a current state of the operating environment parameters and a criticality value assigned to each of the one or more computer servers.

9. Evidence Appendix

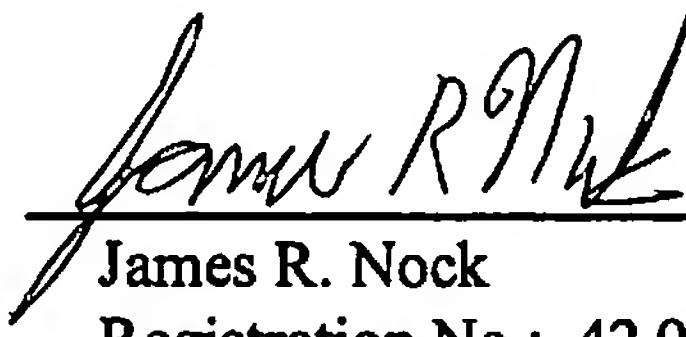
There is no evidence attached for this appeal.

10. Related Proceedings Appendix

There are no related proceedings. Therefore, there are no copies of decisions rendered by a court of the Board attached here.

Appellants believe this appendix satisfies the requirements of 37 C.F.R. § 41.37(c)(x).

Respectfully submitted,

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